

THE  
CHICAGO MEDICAL JOURNAL.

---

VOL. XXVI.—AUGUST 1, 1869.—No. 15.

---

TRANSLATIONS.

---

*Anatomical and Physiological Observations made  
upon Decapitated Subjects.*

BY M. C. ROBIN.

*From Robin's Journal de Physiol., etc.*

(CONTINUED FROM LAST MONTH.)

VI.—Of Some of the Phenomena of Reflex Action and of Contractility.

M. Duval observed in two criminals, in 1868, movements by reflex action of the most evident character :

“By *pinching* the skin, and particularly by giving it a sharp blow with the hand, the subjacent muscles were seen immediately to contract; the contraction subsided quite slowly. This experiment has been repeated a great number of times, especially upon the limbs. Amongst other muscles, the contraction of the deltoid, of the biceps brachialis, of the anterior muscles of the thigh, of the gastrocnemii, manifested themselves most clearly.

“In the first subject the reflex power persisted one hour

and three-quarters after decapitation. The reflex movements were always more slight and less prompt to develop themselves after the first hour; a more energetic excitomotor blow or a more forcible pinch became necessary.

"In the second subject reflex action was appreciable an hour and a quarter after death.

"The muscles of the neck were, during more than three-quarters of an hour, the seat of fibrillary contractions, very plainly visible of their cut surface, and that without any previous excitation, either mechanical or electric." (M. Duval, *loc. cit.*, p. 522, et *France Medicale*, Août, 1867.)

Dr. Dupri, his students and I, equally, observed in the criminal whom we had under our eyes, the phenomena of contraction of the muscles of the neck, such as those described by M. Duval. In all the muscles of the thorax and abdomen cut for dissection, contractions were produced also many times at more or less protracted intervals after the section, aside from all mechanical or physical excitement, which has moreover been observed in all the animals described soon after death. These contractions are certainly initiated by the novel physical condition of each striated fasciculus, induced by dissection, by the changes of temperature in the portion cut and exposed to the air.

I wish, moreover, to state that when we left the amphitheatre, at 9 o'clock, that is, more than three hours and a quarter after the execution, the fasciculi of the diaphragm cut and still covered by the pleura and peritoneum, still contracted from time to time energetically, almost in a rythmical manner, without physical or mechanical intervention on our part. We determined, in addition, contractions of the muscles of the abdomen and of the arm by pinching the skin, with or without torsion by the aid of the nails or dissecting forceps, the pinching being performed at the level of the muscle in which it was intended to excite contractions, care being taken not to compress nor to drag them. Contractions, inducing still greater prominence of the muscles, were obtained by striking the skin perpendic-

ularly to the direction of the contractile fascicule, either with the edge of the hand or with the back of the scalpel. But this cause of contraction is not of the same order as the pinching. By percussion, in fact, the muscular fibres are acted upon mechanically and directly, in spite of the interposition of the skin of the adipose tissue, and of the subjacent faciae, just as is done when a red muscle exposed is struck. On the contrary, in the case of pinching the skin followed by contraction of the subjacent muscles, the phenomena are upon the trunk of a decapitated criminal, of the same order as the movements by reflex action, properly so-called; that is to say, without the intervention of the direct cerebral acts of sensitive perception and of volition, the impression of the pinching is transmitted to the cells of the posterior horns of the spinal cord, then these by the intervention of their anastomoses with the cells of the anterior cornua placed at the same level, excite the motor activity of these last, which the tubes of the anterior roots transmit to the muscles.

Among the phenomena of this order which we have determined in the experiments above described, the most important is the following, observed about one hour after the execution. The right arm being extended obliquely alongside of the trunk, the hand about twenty-five centimetres outside of hip, I scratched the skin of the chest with the point of a scalpel at the level of the nipple, over an extent of eleven or twelve centimetres without making any pressure upon the subjacent muscles. We soon perceived the pectoralis major, then the biceps, the brachialis anticus perhaps, and the deltoid, contracting successively and rapidly.

The result was a movement of approximation of the whole arm towards the trunk, with rotation of the arm inward, and demi-flexion of the forearm upon the arm, a true movement of defense which projected the hand from the side of the chest towards the cavity of the stomach.

The thumb, which was demi-flexed towards the palm of

the hand, and the other fingers demi-flexed upon the thumb, exhibited no movement.

The arm having been replaced in the position which it had previously occupied, we saw it execute a movement like the preceding at the moment when the skin was scratched in the same manner a little below the clavicle.

This experiment succeeded four times, but upon each occasion the movement was less extended; after which the scratching of the skin induced nothing further than a contraction of the pectoralis major, scarcely involving the arm.

We moreover made no further attempts to determine if the innervation exhausted by exercise might be re-established, under these circumstances, after a certain period of repose, as in ordinary experiments upon the nerve, induced by reflex action.

When, after having made the different observations and experiments reported in the preceding paragraphs, we directed our attention to the head, and to the spinal cord, we found all excitability in this latter already extinguished, and we noted equally no movements from pinching the skin of the lips of the cheeks, of the conjunctiva, or from scratching the cornea.

We moreover had no electrical apparatus at our disposal.

The facts set forth in this paragraph only confirm, in man, those which so frequently established in different animals, since Prochaska, Legallois, Marshall, Hall, &c., show that, aside from all intervention of cerebral nervous acts, termed acts of perception and will, an inevitable functional correlation exists between this or that given surface, and the muscles which they cover, in consequence of this fact, that the tubes of the nervous roots, of the same pair, terminate in the same place, at the same level, in same mode, some in the integuments, others in the organs which they cover. If, on the other hand, the configuration and the insertions of the muscles, as well as the arrangement of the surfaces and of the articular ligaments around which they extend, be considered, the fact may be established that the

simultaneous and successive contractions of these muscles determine clearly a regular and co-ordinated movement, as well as automatic, and neither anticipated, spontaneous nor instinctive in opposition to what is as yet admitted by many of those who interpret and generalize these actions outside of the data of anatomy and physiology.

Touching the acts accomplished by the nerves brought into play in this case, they consist in a transmission by the tubes termed sensitive of the impression produced by the pinching, &c., as far as the cellules of the posterior cornua of gray matter, which by an act of innervation analogous to those of perception, so-called, but without being identical with them, exciting the activity termed motor of the large cells of the corresponding anterior cornua; motricity transmitted as far as the muscle of the tubes originating from these cells, and which form the net-work of the anterior roots and of the motor nerves.

It is especially these acts of motricity which have been particularly considered as of an intellectual character, inasmuch as the anatomical elements of the gray nervous substance and their connection have not been known.

But they can be accomplished in the cord, and they are independent of cerebral innervation, which, when it intervenes, effects only their excitation or modification in this or that direction, but does not supply them. It only commands without executing them.

The observations reported above agree on the other hand with the experiments of Brown-Sequard, which prove that muscular contractility persists for a much longer time after the cessation of the circulation in men and other large animals than in the smaller mammiferæ (Brown-Sequard *loc. cit.*, 1858 in 8vo, p. 354).

*Condition of the encephalon and of the skin.*—We will add here a few anatomical remarks upon the preceding physiological data.

The skin of the criminal above referred to, submitted to our observation the morning of the fifth of September,

1868, the body being still warm, did not present to us the condition of cutis anserina; the muscles of the lower limbs began to exhibit a slight cadaveric rigidity, when we had left it three hours and a quarter after the execution. The penis was flaccid, not retracted. On the contrary, the two other criminals of whom I have spoken already, observed in the laboratory with MM. Legros, Goujon, etc., the one on the tenth of March, the other on the twenty-eighth of November, 1867, in a sufficiently low temperature, the first six and the second ten hours after the execution, had the skin in the condition of cutis anserina in the highest degree.

The corpus cavernosum was retracted and hard, as in a man emerging from a cold bath. The cadaveric rigidity was general without being extreme in the latter.

The preceding facts exhibit very well the influence of cold, and the absence of all sanguineous congestion in the production of furrows and rugosities of the skin, characterizing the preceding state.

In the first of the criminals observed in my laboratory, and who was about twenty years of age (Lemaire), the weight of the brain, the pia-mater and the medulla oblongata included, was 1,183 grammes. It was remarkable by its flatness, by the narrowness of the anterior lobes, which constituted upon the sides of the mass considerable and abrupt ridges.

The pia-mater was remarkable by its extreme tenuity and especially by its adhesion to the gray substance of the convolutions. This adhesion was such that it was impossible for M. Legros to raise up this membrane without dragging with it a portion of the superficial gray substance of the thickness of one or two millimetres. It was necessary to abandon this operation after having raised several square centimetres of this envelope and crushing the encephalon remaining in position.

In the two other subjects the pia-mater, perceptibly thicker, without exceeding the normal thickness, was read-

ily detached from the surface of the convolutions without tearing up their substance.

The encephalon of the one of these who was more than sixty years of age (Davilain or Avilain) weighed 1,277 grammes, the pia-mater included. That of the last criminal, aged about thirty two years (Blanc Gonnet), could not be weighed while still warm. The white and gray substance had a consistence a little more firm than what is ordinarily observed in autopsies. Neither offered anything particular regarding conformation or volume of the encephalon.

In these two latter the walls of the cerebral ventricles and of the fourth ventricle were found in contact, simply moist, with only a few drops of serosity in each of the ancyroid cavities and in the anterior portion of the third ventricle.

VII—Remarks upon Certain Tissues and Fluids of the Economy Observed in the Recent State.

In the two criminals whose lungs were observed, the one at six or seven and the other at ten or twelve hours after death, the posterior portion of the lower lobe of these organs had become livid by hypostatic congestion of the capillaries. The other portions of the pulmonary tissue had the grayish color, the marbled aspect, with some black interlobular marks, which are ordinarily observed in the dead body.

In the oldest of the subjects the apices of these two organs were emphysematous, with a little air in the interlobular spaces, especially in the right.

In the last of the criminals the lungs, still warm, presented no hypostasis; they presented the color already indicated. The summits of the two lungs, especially that of the left, were sprinkled with *gray granulations*.

The color and consistence differed in no respect from that which are observed in the lungs of subjects upon whom autopsy is made from twenty-four to forty hours after death.



Near the apex of the left lung there was a corrugated cicatrix and cavity of the size of a nut, filled with pus, surrounded with tissue rich in gray granulations. The consistence and the color of this morbid product, yet warm, did not differ from what is observed in autopsies of analogous cases.

The same was the case with the adhesions existing between the pleura pulmonalis and the pleura costalis.

In the three subjects the spleen was firmly contracted upon itself. Its tissue had nearly the consistence of that of the liver. Its lacerated surface was irregularly granular, and gave only *splenic pulp* when scraped.

The tissue of the liver uniformly of a reddish brown, without distinction of two substances—the one red, the other yellow—exhibited as granulated fracture and the consistence habitually observed in autopsies.

In the subject whose abdomen was opened one hour after death, and whose viscera were yet warm, more peristaltic contraction of the intestines was observed even after pinching. The abdominal viscera exhaled no intestinal odor, but only a slight odor of stale meat.

In the subject whose abdomen was opened seven hours after death, the organs exhaled a slight odor usually termed intestinal. It was likewise apparent, but decidedly more marked, in the one whose abdomen was opened twelve hours after the execution. In this last, the organs contiguous to the fundus of the gall-bladder were tinged slightly greenish, whilst they were not at all so in the two others.

The color of muscular coat of the intestine was a pale, semi-transparent gray, slightly reddish, and that of the bladder was, on the contrary, of a pale, semi-transparent gray, slightly bleached; this color, in fact, did not differ sensibly from that observed in subjects submitted to autopsy, in which these tissues have undergone no morbid alteration. *Intestinal Mucus*—In two of the subjects the mucus and the intestinal contents, examined by MM. Goujon,



Legros, and myself, gave an acid reaction from the cardia to the rectum inclusive. The acidity, very marked throughout the entire stomach, was on the contrary very feeble in the duodenum and the cæcum, and then diminished progressively throughout the remainder of the large intestine. These two subjects had died during the digestive process, the jejunum and the cæcum alone, each contained several cubic centimetres of gas.

In two of the subjects the contents of the small intestine, as far as the middle of the ileum, were of a creamy consistence, of a whitish gray color; it had, indeed, all the characteristics attributed to chyme in the descriptions of authors.

In the other subject, who had eaten quite a large quantity of green leguminous food, the chymous paste had preserved this color, and exhibited a consistence a little more pasty than in the preceding. The prismatic cells of the epithelium of the small intestine were filled with fatty granulations, which rendered them opaque.

In these, as in the mucus of the small intestine, and often also in that of the stomach, there are found in all subjects dead from disease, observed from twenty-four to forty-eight hours after death, numerous short and rigid filaments of *Leptothrix* (bacteria). Sometimes, also, Vibriones or *Spirillum* are seen. Now, in the first of the subjects the examination of the mucus of the duodenum, and of the rest of the small intestine, made about eight hours after the execution, showed none of these filaments nor any vibriones.

In the second the examination, made about thirteen hours after death, showed a small number of *Leptothrix* only, and no vibriones.

#### BILE.

In three subjects the gall-bladder, almost full, contained about thirty grammes of bile. In one of them, collected while warm, it had a stale, slightly nauseating odor, but without any other well-defined characteristics. It presented the same characters, to a little less marked degree,

The bile of these two subjects and the bile of a dog recently killed examined comparatively, boiled, became of a greenish-brown, and there were developed little grayish clots sparsely floating in the liquid, depositing themselves at the bottom of the test tube in a thick stratum of several millimetres in a depth of liquid of seven or eight centimetres. Although changed to a deeper tint, the supernatural liquid remained more limpid than before, having no longer the slightly turbid appearance which it formerly exhibited when it was examined by transmitted light. Moreover, it ceased to be filamentous, as before.

The little clots, formed under the influence of heat, were friable, easy to be separated formed of a finely granular non striated substance, and enclosing a few fatty granular and broups of prismatic epithelial cells.

It will be perceived from the preceding that it is not perfectly correct to say with some authors (See Vulpian, *le Foie et la Bile, Reone, des Cours Scientifiques*, Paris, 1867, p. 46) that the bile coagulates by heat, for that which coagulates by heat is the mucus superadded to the bile by the mucous membrane of the gall-bladder, and only in very small quantity (See C. Robin *Leçons sur les Humeurs*, 1867, p. 473 and 547). Schultz, Berzelius, Dumas and many other observers have moreover asserted, for a long time, that bile does not coagulate by heat.

Besides, science demands still that a comparative examination be made in the preceding regard, between the bile flowing from the hepatic duct, before its arrival at the gall-bladder, and that which has already remained in that receptacle.

Acetic and nitric acids likewise coagulate this mucus, but beside, they precipitate the tauro-cholic acid in the state of little resinous drops. As to the coloring matter, they attack it likewise; but it cannot be determined if this action is such as will permit bile to be classed among the liquids coagulable by acids; for it is not yet known whether they

cause it to undergo a true coagulation, after the manner of that which they produce in casein, for example.

#### GENITO-URINARY ORGANS AND SEMEN.

In one of the subjects the bladder, the seminal vesicles and the prostate were removed in examining the rectum, about two hours after the execution.

A primary fact attracted our attention in this subject: the absence of all urinous odor, or of that usually termed intestinal in these organs, and in the surrounding lammillar tissue, on the contrary to what is observed in these parties in all autopsies, from twenty-four to forty-eight hours after death. Thirty hours later, notwithstanding the retention of these tissues in a jar, in a temperature of twenty to twenty-five degrees (centigrade), they had assumed no cadaveric, urinous nor faecal odor. It had still only the faint odor of fresh tissue.

In the second place, we, with M. Dupre and his students, remarked the absence of all odor in the semen expressed from the cut vasa deferentia, and from the opened seminal vesicle, even after rubbing the liquid between the fingers. The milky fluid expressed from the prostate gland upon the side of vera montanum presented to us the same absence of all odor either spermati, intestinal or faecal. Thirty hours later this liquid was yet inodorous.

It is after observations of this sort, made upon men and animals, that I have detected that, taken isolated, the fluids which unite to constitute the semen do not exhale the peculiar spermatic odor, and that this is not developed except at the instant of ejaculation (*loc. cit.*, 1867, p. 361).

Without observing what might be the odor of the contents of the seminal vesicles in the subjects examined by him, M. Duval asserts that he has discovered a very different odor from that which is exhaled during life. (M. Duval Congress Médicale, 1867, p. 527.)

The semen expressed from the divided vasa deferentia was thick, of a creamy consistence. That of the seminal vesicles was heavier than water, of the consistence of jelly, of a yellowish gray color, semi-transparent, neither lactescent nor opalescent. It was clotted under the finger; neither viscous nor filamentous.

Six hours after, microscopic examination demonstrated that this clotted condition was due to the presence of symplexia, many of which were more than the tenth of a millimetre in thickness, agglutinated together, and containing encysted spermatozoa.

The free spermatozoa moved actively. Thirty hours later they were motionless, and the semen had lost its gelatinous consistence, and its clotted condition to become diffuent and less transparent than before. The *sympexia*, especially, were not liquified; but they were no longer agglutinated together.

The prostrate liquid, examined at the moment of the autopsy, and several hours afterward, was of a milky color, quite fluid, composed of a colorless fluid, holding in suspension fine granulations and fatty globules, some prismatic epithelial cells and some hyaline drops of a viscous consistence.

The urine contained in the bladder was clear and inodorous.

In the two other subjects observed from six to seven hours and twelve hours after execution, the semen of the vasa deferentia was semi-fluid, of an opaque, creamy, slightly yellowish white color. That of the seminal vesicles was semi-transparent, grayish in the younger, of a yellowish white in the elder; it was neither viscous nor filamentous, nor granular; it was free from *sympexia* in one of these, and presented a few in the other; it was free from all spermatic and had only a urinous or slightly faecal odor.

This fact should be associated with the absence of all odor of this kind in the cellular tissue of the fundus of the bladder, in the surroundings of the rectum, and in the

seminal vesicles, in the subjects whom M. Dupra, his students, and myself have examined in this regard about two hours after death. It shows that the faecal or urinous odor of these parts, and of the semen of all subjects examined from twenty-four to forty-eight hours after death (see *Dieu recherches sur le sperm de vieillards, Journal de l'Anat. et de la Physiol.* in 8vo, p. 462), is due to the gradual imbibition of the odorous principles of the urine and the faeces, and that it does not exist before this imbibition.

Thirty-six hours after death all the spermatozoa were motionless; but by warming a portion up to a temperature of forty degrees (centigrade) we saw one or two per cent. of the spermatozoa resume feeble movements, although sufficiently energetic to determine their progression.

In the three subjects, the urethral mucus contained a few spermatozoa, free epithelial nuclei, regularly polygonal cells, with one or two voluminous nuclei, large flattened polygonal cells of the size of those of the oesophagus. Some of these different cells were hollowed with hyaline excavations.

The movements of the vibratile cilia of the epithelial cells of the trachea were still very energetic thirty hours after the execution.

#### PERICARDIAC AND VAGINAL SERUM.

In the three subjects the internal surface of the pleura and of the peritoneum was slightly humid, but contained no liquid, notwithstanding the presence of pleuritic adhesions, and of gray pulmonary granulations in one of them. The pericardium of one of them was in the same condition, as were the tunicae vaginales in the two younger. The pericardium of the subject aged twenty years contained about thirty grammes of serum as limpid as water, without viscosity, semi-transparent, of a citron yellow and neutral. It became white and milky, without solidifying, by the application of heat.

This liquid, collected twelve or thirteen hours after death, left at rest, became, all at once, transparent, and yielded a thin layer of grayish deposit. This last was composed of quite large flakes of tessalated epithelial cells rolled up or flattened, resulting from the desquamation of the epithelium of the serous membrane. There were, also, isolated cells. Of these different cells isolated or aggregated into flakes, some were very small, finely granular, grayish; others were five or six times larger than the preceding, non-granular and transparent, with large, pale, oval nuclei.

This subject had a small hydrocele on the right side, formed by a neutral liquid, of a citron color, limpid, coagulating by heat.

The kidneys of the same subject contained each two or three cysts of the size of a nut, filled with a colorless liquid, clear and limpid as water, and neutral, and which was rendered white and opaque by heat and nitric acid, without being coagulated.

---

### ***The Medical Profession and the Public—A Plea for Popular Professional Education.***

BY JOHN WILLIAMSON, M.D., CHICAGO.

More than any other is the medical profession not in the popular sympathy. The people know nothing of it, and they seem to care less. This is not as it should be, for the profession's sake and the people's. When any one gets sick, without the preparatory knowledge fitting him to discriminate, he sends for what he has learned to call a "doctor." A "good doctor" is to him, not of necessity an educated and refined gentleman, whose versatility of cultivation is his best guarantee of professional excellence, but a man of "good judgment" and "great memory," who remembers a great variety of medicines sure to make a sick person well. There is nothing the public so much demand

of the medical practitioner as "experience," and I am quite sure nothing is more perplexing to the unfortunate young physician than this tormenting exaction. To be trustworthy, a "doctor" must have seen very many similarly sick. The intelligent student of medical experience, on the contrary, is perpetually vexed with its conflicting caprice. He would gladly forget his experience. In no other profession is it so unscientific, and, if trusted, so mischievous. Adaptation of intelligent skill to unrelated exigencies is the qualification essential to medical success.

To some "school" of medicine, too, the public always assign the "doctor." To the defense of this "school," the people say, every other consideration is with him subordinate. The people cannot see why schools of medicine are impossible, and the profession will not inform them. In a profession where neither a diagnosis nor a prescription can be repeated, the unity of judgment required to form a "school" is of course forbidden. As well establish conflicting schools of chemistry or divide geometry by the distinction of sect.

So, unfortunately, has the medical education of the masses been neglected by the profession, that I doubt if two per cent. of really intelligent men could tell why one man is a medical "quack," and another a skillful physician. For this state of things the medical profession is altogether responsible. The people do not understand the fundamental canons of medicine. They do not know by what kind of reasoning the profession reaches its conclusions. In consequence of this deficiency of knowledge, medical attention is popularly sought and retained by adventitious partialities. Disease is regarded as an invariable unit, to be combatted by uniform treatment. The people do not see that the philosophy of practical medicine admits of no generalizations, and medical art, in consequence, of no specifics; that reason, rather than memory, is invaluable to guide to successful therapeutics.



The medical profession will never be honored and trusted to an extent commensurate with its merits until the people, its patrons, are by it educated to discriminate familiarly in medical thought. There is no reason why medical men should not instruct the people in medical knowledge. The details of the science must, of course, ever remain with the profession, but the genius of our argument should be understood by all. The people are both honest and intelligent; to be endorsed by them we have but to explain ourselves. No one can see the truth more quickly or embrace it more heartily than the intelligent, though technically uneducated, laity. To say that we can not tell the people what we know, because of the unavoidably scientific conception and expression of our knowledge, is untrue. What one man knows he can communicate to another. Thought, unimpaired by the adaptations of language, is ever communicable. It is not the thought, but the expression, of medical science that repels popular familiarity. With no other class of knowledge are the people more thoroughly interested. An acquaintance with human anatomy and physiology underlies every other successful investigation of the human economy.

No one need fear that to thus instruct the people might eventually dispense with the medical fraternity. The dignity of the profession would be exalted by making those who trust it intelligently critical. It can not be seriously believed that the public safety would thus be endangered. Superficial students of medicine would not then assume the functions of the practitioner, though this affirmative is persistently entertained. Men generally, as we find them in relation to medical knowledge, know just enough, experimentally, to make them annoying and dangerous. With adequate enlightenment the difficulties besetting the best physician are sufficiently known.

Intelligence is always cautious. Of nothing are the ignorant so reckless, and the intelligent more careful, as the human body. Without an acquaintance with primary physiology, from every abuse the restorative powers of medi-

cine seem competent to recover. To the protection of the most cultivated art intelligence always intrusts its most sacred cares. Knowledge sufficient to be critically, but not remedially correct, is what we maintain for the people. "A little knowledge is a dangerous thing," but it is all any of us possess. Opportunities of danger are in proportion just to the revelation which our knowledge makes of them. The amount of one's knowledge is purely relative. The man of great knowledge is the man of great danger.

If we know certain things concerning health and disease, demonstrably, why not tell the people? When the truth is told and proved, no position opposed to it can be maintained. The "quack," then, has no opportunity. The intelligent people will then demand minute conformity to what they have learned as fundamental.

Medical men, in assuming to say that no one is competent to reflect upon the laws of health and disease but the professionally educated physicians, betray a disingenuous pride. There is every reason why the people should thus think. As long as medical men keep profoundly their secrets, the people have no means of distinguishing them from the great body of obvious pretenders. And why should they have? How is the public to decide? What qualifications are they to seek? By what marks may the medical scholar be known? Is he invited to labor in a field where the results of industry and talent are unknown? Must he possess what he can not illustrate, and defend what he can not exhibit? The people say a physician must attest his merits by his successes—he who cures most is most deserving. No criterion could be more fallacious. The people are not competent to award professional success. The veriest charlatans display the most numerous authenticated testimonials of success. Let the primary facts and philosophy of medical science be popularly explained and discussed, and then the merits of a physician may be decided by the measure of his success. The "successful doctor" is now one who possesses the power of convincing his patrons that nature is never a sovereign restorer without his supplementing aid.

To incite popular inquiry here would not be difficult. The injunction "know thyself" is no more obligatory than desirable. What men should do, fortunately they here profoundly feel like doing. Not one conformity to the laws of life, or deviation from them, which they from time to time experience, but what is full of interest to them and easily understood, if divested of a vernacular whose terminology is not absolutely barbarous. The theologian finds no difficulty in securing the attention of the people when the most intangible and abstract propositions are considered. The adjustments of legal questions are of absorbing interest to every one. Why, then, should not medicine, a science profound and faithful, equally merit popular attention? The *knowledge* belonging to both Law and Divinity is *intuitive*; the *reflection* and *argument* are exegetical and predated. Knowledge in medicine is eliminated by that exacting co-ordination of logic, induction.

These simple facts the profession should see to it that the people understand.

If the best culture of our profession would write our great and interesting facts, divesting their expression of needless technicality, there is nothing the people would read more readily. Appreciating the demonstrations of our logic, and learning to respect the ardor and honesty of our experimental research, they would exclude from all patronage those swarms of scoundrels who now infest the unwary public.

A few suggestions, to make available what has been said, may be appropriate.

The measure of popular consideration secured by the profession rests with itself. If we are understood, we will be appreciated. Our favorable introduction to the public as men and scholars must come through our now unfortunate patients. They must be intelligently impressed, not only with our individual ability, but with the dignity and absolute truthfulness of our calling. That this impression may be made and may continue, when called to any case of

disease not involving the judgment, the practitioner should fully explain the nature of the difficulty and the philosophy of the treatment proposed. To the extent the physician understands the case he can communicate his knowledge to his patient, and, if judiciously, with surpassing profit. In this way he may counteract the ludicrous and often mischievous absurdities of domestic diagnosis and remedy, and, at the same time, secure a profitable review of his own attainments. This fact need not be disguised, that to *appear* competent is as essential as to *be* competent. Appearances, critically construed, are the exclusive means of signifying realities which are fundamental. There is nothing the people like better than reasons assigned and demonstrations exhibited. Medical terms and formula must be eschewed, and the plainest words and reasonings employed. The capability to understand and profit by these explanations must be presupposed by the profession.

To epitomize what I have to say concerning these things, the following summary is offered :

1st. The popular idea that scientific and ordinary knowledge are different, must be corrected.

2d. That public familiarity with the genius and philosophy of medicine would ensure general insecurity.

3d. That adaptation of medical thought and expression to popular taste and comprehension would detract from professional dignity.

4th. The best writers and thinkers in the profession should contribute largely to its popular literature.

5th. A thoroughly appointed periodical literature should be furnished the people and pressed upon their attention by the profession until generally accepted.

6th. The individual practitioner should consider his patient entitled somewhat to his didactic instruction, as he is to his remedial skill.

7th. Books upon systematic medicine, exhaustive and reliable, but popular, should be available to gratify a public taste earnestly longing to be informed.

8th. The popular lecturer in these inviting fields, instead of being as now, an ignoramus or itinerant mountebank, should dispense the best thought of the profession.

9th. General as well as technical scholarship must be exacted of every physician by colleges conferring degrees, or intelligent men of other professions will ridicule our scientific assumptions and gainsay our arguments.

10th. The medical profession must undertake to constitute and exemplify a factor of that great composite, the general public.

---

## FOREIGN ITEMS.

---

### *Puerperal Hæmorrhage arrested by Iodine Injections.*

M. Dupierris, of Havana, reports to the *Gazette des Hôpitaux*, Paris, his experience in the use of iodine injections for the arrest of uterine hæmorrhages. Commencing as far back as 1835, with the application of the tincture of iodine upon pledgets of lint to the cervix of a cancerous uterus, and succeeding thus in arresting an otherwise uncontrollable hæmorrhage; he continued to use it to control metrorrhagia, diluting it with two volumes of water; and still later as an intra-uterine injection. He has subsequently used the tincture of iodine frequently as an intra-uterine injection in cases of puerperal hæmorrhage, with great advantage and without accident.—*Gazette des Hôpitaux*.

### *Ovariectomy.*

Since his last report (June, 1868), M. Kœberle has performed this operation twenty-five times (up to April 1st, 1869), and tabulates them thus:

Without adhesions,	8 cases;	8 cures.	
With slight adhesions,	10 “	10 “	
With important adhesions,	7 “	2 “	5 deaths.
<hr/>			
Total, . . .	25 cases;	20 cures;	5 deaths.

Among these twenty-five new cases there were six patients aged from 48 to 65 years. Of these, one aged 52 years died. There were three cases of double ovariectomy. These three cases were followed by recovery.—*Ibid.*

### ***Bromide of Potassium.***

Doctor August Maréchal, in summing up the new facts lately elicited, favorable to the treatment of epilepsy with this remedy, commends most highly the syrup of bromide of potassium, exempt from iodine, prepared by Mr. Henry Mure (Pont St. Esprit, Gard), and assigns the presence of iodine, or chlorine in the salt, as the cause of the gastric irritation, diarrhœa, loss of appetite, and emaciation sometimes consecutive upon the use of the bromide. In the same connection he quotes M. Prof. Sée (of la Charité), who asserts that "a new era has dawned for epilepsy; certain cases may be modified, others may be completely cured."

M. Becoulet, adjunct physician for the Hospital for the Insane, at Auxerre, says: "Bromide of potassium has a real and useful action upon epilepsy. By its sedative action upon the whole system, it calms the accessions of madness consecutive to epilepsy, even when the attacks persist. Experiment with an agent which has already produced such fortunate results, should be continued with ardor."

### ***Traumatic Tetanus.***

Dr. Buchon (of Quingey) reports to the *Gazette des Hôpitaux*, of May 29, a case of tetanus, resulting from extensive burns upon the lower extremities, occasioned by falling into a vessel of boiling acidulated water. The patient being a factory operative, aged thirty-eight years, immediately after the accident, had plunged into a river. The tetanic symptoms, supervening upon the eleventh night, were ushered in by recurrent lancinating pains in the left heel (that of the burned leg), extending into the leg and foot, occasioning cramps and separation of the toes (in the language of the patient "like a fan or a pigeon's wing"), closing of the jaws which, even during the intervals of the paroxysms,

could not be freely opened. The determining cause of this complication appears to have been cold resulting from the diminished temperature of the room, occasioned by leaving a door open during the fifth night. The patient was first treated with laudanum, the result of which, after two days, was an exaggeration of all his symptoms already existing, with the addition of great gastric irritation, for which seidlitz was prescribed—opium having thus far failed, as chloroform on two former occasions. Dr. Buchon next administered bromide of potassium, four grammes (about a drachm) during the day. This was followed by slight amelioration of the paroxysms and diminution of the sweat; but three days afterwards the lancinating pains in the heel, with the cramps, returned with all their former intensity. An addition of one gramme (15 grs.), to the dose, of bromide, resulted in a new amelioration. Suspecting the establishment of tolerance, and to avoid being forced by the intensity of the paroxysms to increase the dose, in order to control them, Dr. B. added, every two days, one gramme (15 grs.) of bromide to the quantity already administered (daily). This gradual increase was continued up to eight grammes (about two drachms) daily, and resulted in gradual diminution, and finally in complete cessation of the disease.

Dr. B. remarks further that the paroxysms occurred sometimes spontaneously, even under the influence of five grammes of the salt daily, although they were then most frequently reflex, the slightest touch upon the great toe of the left side being sufficient to induce a recurrence.

There was likewise in this patient, during the latter part of the treatment, a brownish (bistre) discoloration of the skin (he asks, was it an effect of the bromide?)

It was moreover demonstrated, in this case, to be necessary to administer the salt in divided doses, at short intervals, rather than in larger quantities, after longer periods of time, so that the patient may be kept continually under its influence until the final extinction of the disease.



### *Atropine Intoxication.*

A curious case of delirium has recently occurred in the service of M. Richet (Paris), the subject being an old man, into whose eyes a half milligramme (about .0075 of a grain) of atropine in solution had been dropped twice daily for a week.

The delirium resembled the subdelirium of typhoid fever, the patient being able to reply to questions, when his attention was fixed. This condition was at first supposed to be due to purulent infection from a recent anthrax, and sulphate of quinine was administered, especially as the delirium presented very marked exacerbations at the same hour of each day. Under this treatment the patient became so violent as to necessitate the application of the strait-waistcoat. Upon the discovery of the real cause, the use of the atropine was discontinued, and the morbid condition disappeared immediately.

The *Gazette des Hopitaux* urges the necessity of extreme caution in the administration of powerful therapeutic agents in the cases of unusually nervous people, the anæmic, children, and old men, in whom nervous equilibrium is less stable.

M. Richet also narrates in the same journal (June 26, 1869) a case of acute cystitis, asserted to be produced by the exhibition of *silica of the thirtieth dilution* by a homœopathist. When the discovery was made that the patient had a blistered surface which he dressed daily with cantharidine ointment, and this had been removed, the cystitis disappeared and the *silica* ceased to reproduce it.

Dr. E. Brown-Sequard communicated to the Imperial Academy of Medicine, Paris, at its meeting March 16th, 1869, two interesting facts observed by him in some recent experiments, in consequence of injuries to the restiform bodies. The first fact referred to is the occurrence of hæmorrhage under the skin of the ear; the second is dry gangrene of the ears.

A third fact observed by the distinguished experimenter is that lesions of the sciatic nerves induce absolutely the same results as do those of the spinal cord.

Ingestion of three grammes (three-fourths of a drachm) of croton oil by a child of six years. Violent vomiting, slight diarrhœa, rapid recovery.—Dr. Manvezin, *Gazette des Hopitaux*.

A little girl six years of age, affected with a slight impetigo of the upper lip, took, by mistake, and not without great objection, three grammes of oil of croton tiglium in the morning, fasting, in a cup of coffee. She complained of the detestable taste of the medicine and of the pricking which she felt at the isthmus of the fauces, even at the moment of swallowing. Soon afterwards she experienced acute pain in the epigastrium, speedily followed by violent and very profuse vomitings, during nearly three-quarters of an hour.

After having vomited she sank into a profound sleep remaining in that condition for four hours, at the end of which she asked for food. Her parents gave her some soup; the child felt no more pain either at the epigastrium nor in the abdomen. She had but two scanty, loose evacuations of the bowels.

The next day I saw the child; she did not appear indisposed; the throat was not red; no eruption was perceptible; but at the commissure of the lips, on the right upper eyelid, and upon the left buttock were some patches of minute vesicular eruption, such as croton oil ordinarily produces, and doubtless caused by contact of the hands of the child, smeared with the vomited matter, with those parts of the body.

The oil swallowed was proved to be of excellent quality, and produced upon the skin, in a very little time, an abundant vesicular eruption. How is this apparent harmlessness to be explained? Why were there not more numerous evacuations?

The violent vomiting doubtless expelled the greater portion of the oil; but did there not remain in the stomach a single drop, a dose usually sufficient to produce violent purgation in a child of that age? How far did the soup, taken four hours after the ingestion of the oil, contribute to neutralize the action of the poison? are questions worthy of consideration.

The medical societies of London are about to fuse in order to form an Academy of Medicine.

The initiative has been taken by the Medico-Chirurgical Society, and the Obstetrical Society is about to follow its example.—*Gaz. des Hop.*

A Pharmaceutical Congress, to which representatives from all civilized nations are invited, will take place in Vienna in September next.

Several important questions of public interest will be discussed. Amongst others the subject of a universal Pharmacopœia, with the view to obviate the difficulties in the preparation of foreign prescriptions with medicines prepared according to another pharmacopœia.

---

## EDITORIAL.

---

### *Criminal Carelessness.*

The morning papers of August 2d contain the following verdict of a coroner's jury:

"We, the jury, find that the said George H. Deming came to his death from an overdose of *aconite*, administered for brandy by one J. J. Harrington, druggist, on the corner of Illinois and Rush streets; and from the testimony adduced, we, the jury, believe that the said Harrington was guilty of criminal carelessness in not having his bottles plainly marked, and in their proper places, through which means the mistake occurred which led to this fatal result."

Another sample of "crowner's quest law," to which an admirable parallel may be found in Hamlet, act V, scene I. The man is dead, "the coroner hath sat on him, and finds it *misplaced bottles*. Nothing whatever is said of the criminality of tampering with human life by persons who can not, upon any hypothesis, be supposed to know anything about the principles of medicine. Had the brandy been administered in accordance with the intentions of the druggist, the verdict of the jury, *criminal carelessness*, would have been quite as appropriate.

We have no desire to add one jot to the punishment which this man's conscience will inflict upon him, and believe that it alone will be a sufficient atonement for his fault. Not upon his shoulders alone should the lash be laid, but upon those of the public which sanction and sustain the practice of tampering with human health and life, prevalent amongst some (we are glad to say, not the best) apothecaries in this city. What would have been thought of the apothecary who should have attempted to amputate the man's leg, had it been accidentally injured, and thereby occasioned his death? Would the verdict in such a case have been "*criminal carelessness*" in not properly ligating the vessels? or would it have been willfully endangering human life in presuming to attempt what he knew he could not perform? If this had been the first case of the sort, there would be some apology for the evasive character of the verdict above quoted; but when it is well known that drugs of the most deadly nature are daily and hourly prescribed and sold by apothecaries' clerks in this city, upon no other warrant than their own natural judgment; when it is also known that a large proportion of the suicides are thus supplied with the means of self-murder, it seems much more appropriate that their own verdict, "*criminal carelessness*," should be found against the coroner's jury by that higher tribunal, public opinion.

***Amende Honorable.***

We sincerely regret that, by a most unaccountable inadvertency, there was allowed to appear in the number of *THE JOURNAL* for July 1st, a letter over the signature of George R. Welding, M.D., reflecting upon Mr. S. S. White and Dr. Geo. J. Ziegler, of Philadelphia, respectively the publisher and one of the editors of our highly esteemed and valuable contemporary, the *Dental Cosmos*.

We believe that the communication referred to is both false in statement and calumnious in design, and most heartily beg pardon of our readers for its infliction upon them.

The *Dental Cosmos* is highly creditable to its publisher, Mr. White, and to the dental profession; and Dr. Ziegler discharges the duties of his editorial position with rare fidelity, industry and excellence.

***Names Again.***

There is no more annoying circumstance than similarity of names in a large city like Chicago and San Francisco. Our contemporary of the *Pacific Medical Journal* is under constant tribulation from an assumed namesake, who sells *Patent French Safes!* and runs a quack infirmary especially for the convenience of veterans wounded in venereal wars. In this city our colleague, Prof. Moses Gunn, whose reputation both as a teacher and surgeon has been won by nearly a quarter of a century of toil and vast experience, is every day confounded with a new comer, perhaps of the same name, who has gained a handle to his cognomen by adroit connection with a so-called *Eclectic* concern recently hatched by the sapient legislators of Illinois, in anticipation probably, of the good time coming when none but M.Ds. can practice in this commonwealth. A rose by any other name will smell as sweet—why not a quack doctor?

Ludicrously enough, in one sense, if it were not for the trouble to which it subjects patients, the new city directory, *probably* again under the influence of some adroit manipu-

lation, puts down the residence only, of Prof. Gunn, several miles distant from his office, which is at Rush Medical College, and labels him "physician" only. The namesake, *perhaps*, is given office and residence both, and duly labelled "physician and surgeon."

We deem it a duty we owe the profession of the northwest, that they should be put on their guard against this ingenious swindle. It is due to Prof. Gunn to state that he has not instigated the present notice. His office is at Rush Medical College, and physicians and patients should "govern themselves accordingly."

What the present editorial writer has suffered from a somewhat similar confusion of names need not here be put down. He has at least the consolation that some of his "short comings" have been set down, both by the public and the Recording Angel, to the account of "*the other man*."

### ***Bowels.***

Some of our correspondents wish to know whether, as the newspapers report, a certain irregular practitioner of this city, did, in point of fact, recently, in operating for strangulated hernia in a woman, remove four feet and some odd inches of intestine, with recovery of the patient without any unpleasant symptoms.

The thing is possible. Over thirty years ago the writer was present at an operation of the kind, when some eighteen inches of sphacelated intestine were removed, an artificial anus first established, and the continuity of the intestine subsequently established by a secondary procedure. Many similar cases, and some of a still more extraordinary character, are of record.

In the newspaper case in question there are several elements of improbability. So large a hernial protrusion, in a *woman*, unless of the umbilical variety, is exceedingly unlikely, and "the identical gut" being in a bottle at the operator's office, does not materially enhance the value of

his assertion of where it came from. While belief is in suspense, we have arising in memory an alleged fracture of a patella into six pieces, which was cured in a brief period under treatment, one principal feature of which was a double inclined plane.

### ***Carbolic Acid.***

We are agreeable impressed by the statement of a correspondent of one of our homœopathic exchanges, that there has been a "proving" of this important substance by its internal exhibition. "Two hundred and eighty-four symptoms have been elicited by the five provers, and conveniently arranged for reference." A pamphlet has been published on the subject, which can be obtained at Keen & Cooke's. The correspondent well remarks that: "The results attained should be an incentive to more thorough and extended provings of the drug."

We think it should. Meanwhile will this LORD help us?

### ***Discreditable.***

Among the ablest of our exchanges is the *Richmond & Louisville Medical and Surgical Journal*, edited by Prof. E. S. GAILLARD, M.D., one of the most industrious students, accomplished and versatile of writers, connected with the profession. It seems that in the course of his usual work upon the *Journal*, he had occasion to review a production by one Bell, who we believe is connected with some college or school south of the Ohio river. This review contained nothing but what was in every way legitimate and proper in journalistic criticism, whatever discrepancy of view might be indulged as to the subject matter. But this Bell took the thing in the highest dudgeon. If ever mellifluous in expression, we can assure him that he has broken into a harshness and dissonance which augurs that he has been cracked to utter noise *et preterea nihil*. Although we do not know him from Adam (after the fall), and never heard of him save in the present half-Thersites, half-Billingsate tones,



nevertheless, from the depths of the kindness which notably warms the editorial heart, we urge upon him, for his own well-being, that he betake himself incontinently to silence, or to some seven-times heated furnace of discipline, where he may repair damages, and no longer air his discreditable talk to the immediate danger of all tympani. Let us have peace!

---

### *Extracts from the Medical Press.*

We copy notices, from several reliable sources, of E. Fougere's preparation of Cod Liver Oil, believing it worthy of notice; also call attention to his advertisement in our columns:

*Medical Gazette of New York City, March 21, 1868.*

"The advantages claimed for Mr. E. Fougere's Cod Liver Oil, are that by reason of the addition of Iodine, Bromine, and Phosphorus, it is more efficacious, and at the same time the stomach need not be disordered by an excessive amount of oil administered. This oil was given to about eighty patients in the out-door department of Bellevue Hospital, about thirty of whom were children, the remainder belonging chiefly to the department of chest diseases. The opinion of the physicians using it are nearly unanimous to this effect: That the oil is of a decided medicinal value; that, compared with ordinary cod liver oil, it appears to take effect more rapidly; and that it obviates the very common necessity of adding extemporaneously to the oil, medicines containing iodine or iron, particularly to the syrup of the iodide of iron."

L. M. YALE, M. D., Editor.

---

*St. Louis Medical Reporter, April 1, 1867, St. Louis, Mo.*

"We have, personally, used Mr. Fougere's Compound Iodinized Cod Liver Oil, and can, from experience, pronounce it one of the best articles of the kind now in use, and trust it will receive that attention from the profession which it so deservedly merits. His other preparations stand high, both for excellence and purity.

J. S. B. ALLEYNE, M. D., C. F. POTTER, M. D., Editors.

---

## OBITUARY.

---

DIED.—F. O. EARLE, M.D., late of this city, died at Rye, N. Y., on the 18th ult.

Dr. Earle was a gentleman of marked ability and fine professional attainments. He had devoted himself especially to the mechanical treatment of deformities of the spine, etc. The cause of his death was Phthisis Pulmonalis.